

some deliveries. Further, the transport aircraft, in some implementations, can assist in disaster relief by quickly transporting and distributing products to individuals, communities, stores and the like. In some applications, the transport aircraft 102 can establish a Wi-Fi to places that do not usually have that capability or are incapable of having Wi-Fi, including during disaster relief. For example, the UASs can be launched with Wi-Fi base station relays that can act as a Wi-Fi base station to receive and transmit wireless communication to individual electronic devices, and relay communicates to and from the transport aircraft that can provide greater bandwidth communicate (e.g., via satellite communication, cellular communication, and/or other such communication).

[0055] Some embodiments provide gas-filled aerial transport and launch system of UASs. In some embodiments the aerial transport and launch system comprises: a transport aircraft comprising: a gas chamber; and carrier compartment that is secured with the gas chamber such that the gas chamber induces a lifting force on the carrier compartment; at least one propulsion system that causes the transport aircraft to move through the air; and a navigation control system that controls the direction of travel of the transport aircraft; wherein the carrier compartment comprises: an UAS storage area configured to receive multiple UASs staged to be launched in delivering products; and an UAS launching bay that enables the UAS to be launched while the transport aircraft is in flight and while the UAS is carrying a package to be delivered to an intended corresponding delivery location that is within a UAS flight threshold from a location of the transport aircraft at the time the UAS is launched.

[0056] Further, some embodiments provide methods of aerially transporting and launching UASs, comprising: carrying multiple UASs within a UAS storage area of a carrier compartment that is cooperated with a gas chamber of a transport aircraft, wherein the gas chamber induces a lifting force; and launching each of the multiple UASs through a UAS launching bay while the transport aircraft is in flight and while the UAS is carrying a package to be delivered to an intended corresponding delivery location that is within a UAS flight threshold from a location of the transport aircraft at the time the UAS is launched.

[0057] Those skilled in the art will recognize that a wide variety of other modifications, alterations, and combinations can also be made with respect to the above described embodiments without departing from the scope of the invention, and that such modifications, alterations, and combinations are to be viewed as being within the ambit of the inventive concept.

What is claimed is:

1. A gas-filled aerial transport and launch system of unmanned aircraft systems (UAS), comprising:

a transport aircraft comprising:

a gas chamber;

a carrier compartment that is secured with the gas chamber such that the gas chamber induces a lifting force on the carrier compartment;

at least one propulsion system that causes the transport aircraft to move through the air; and

a navigation control system that controls the direction of travel of the transport aircraft;

wherein the carrier compartment comprises:

an UAS storage area configured to receive multiple UASs staged to be launched in delivering products; and

an UAS launching bay that enables the UAS to be launched while the transport aircraft is in flight and while the UAS is carrying a package to be delivered to an intended corresponding delivery location that is within a UAS flight threshold from a location of the transport aircraft at the time the UAS is launched.

2. The system of claim 1, wherein the carrier compartment comprises a coupling system that removably couples with a carrier mounting of the gas chamber such that the carrier compartment removably cooperates with the gas chamber.

3. The system of claim 1, further comprising a launch staging area within an interior of the carrier compartment and proximate the launching bay such that the UASs are positioned at the launch staging area and activated to fly out of the launching bay.

4. The system of claim 3, wherein each of the multiple UAS comprises a wireless transceiver and a flight control circuit such that the flight control circuit implements flight control commands received through the transceiver from a remote pilot in flying out of the launching bay, and further takes over control in controlling the flight of the UAS in response to a release from the remote pilot to implement a flight path in delivering a package cooperated with the UAS.

5. The system of claim 1, wherein each of the multiple UAS comprises a wireless transceiver and a flight control circuit, wherein the flight control circuit of each of the UASs is configured to control the flight of the UAS in implementing a flight path to one of a plurality of wait locations after delivery of the package to await a remote pilot to take over flight control of the UAS to return to the UAS to the transport aircraft.

6. The system of claim 1, wherein the navigation control system controls the flight of the transport aircraft to fly along a predefined flight path determined based on delivery locations corresponding to each of the packages and flight ranges of corresponding of the UASs as the UASs launch and return to the transport aircraft in delivering packages.

7. The system of claim 1, further comprising:

a package attaching system that automatically receives and attaches at least one package with a UAS prior to the UAS being launched.

8. The system of claim 7, further comprising:

a package identifier system positioned to detect a package identifier of each package cooperated with a UAS, and a flight path that each UAS is to travel in delivering each package is obtained based on the package identifier, and cause each of the flight paths to be communicated to a corresponding one of the UASs with which each package is cooperated.

9. The system of claim 1, further comprising:

a package identifier system positioned to detect a package identifier of each package, identify that a delivery location associated with a first package of the packages is unavailable, and temporarily skip the first package in a sequence of cooperating each of the packages with one of the multiple UASs when the delivery location associated with the first package is unavailable.

10. A method of aerially transporting and launching unmanned aircraft systems (UAS), comprising:

carrying multiple UASs within a UAS storage area of a carrier compartment that is cooperated with a gas